

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

287. (Currently Amended) A labeled target comprising



wherein T is a target, M is a marker moiety and L is a chemical group covalently linking said M to T, said chemical group L comprising a backbone that comprises at least two consecutive peptide bonds, wherein L further comprises at least one additional moiety comprising a peptide bond, an amino acid, a C₁ - C₂₀ aliphatic chain, an alkene group, an alkyne group, a saturated or unsaturated or partially saturated ring, a heterocyclic ring or a sugar.

288. (Previously Presented) The labeled target of claim 287, wherein said target T comprises a protein, a peptide, a nucleic acid, a nucleotide or a nucleotide analog, a receptor, a natural or synthetic drug, a synthetic oligomer, a synthetic polymer, a hormone, a lymphokine, a cytokine, a toxin, a ligand, an antigen, a hapten, an antibody, a carbohydrate, a sugar or an oligo- or polysaccharide.

289. (Currently Amended) The labeled target of claim ~~288~~287, wherein said target T comprises a nucleic acid, or nucleotide, or nucleotide analog ~~is modified~~.

290. (Currently Amended) The labeled target of claim ~~288~~287, wherein said ligand comprises biotin, iminobiotin, digoxigenin or fluorescein.

291. (Currently Amended) The labeled target of claim 287, wherein said marker moiety M comprises a ligand that comprises biotin, iminobiotin, ~~digoxigenin~~ digoxigenin or fluorescein.

292. (Previously Presented) The labeled target of claim 287, wherein said marker moiety M comprises a fluorescent dye.

293. (Previously Presented) The labeled target of claim 292, wherein said fluorescent dye comprises a xanthene dye, a cyanine dye, a coumarin dye, a porphyrin dye or a composite dye.

294. (Currently Amended) The labeled target of claim 293, wherein said fluorescent dye comprises a xanthene dye which comprises fluorescein, rhodamine or rhodol, or derivatives thereof.

295. (Previously Presented) The labeled target of claim 287, wherein at least one of said two consecutive peptide bonds are separated by a single atom.

296. (Previously Presented) The labeled target of claim 295, wherein said single atom comprises C, N, S, O or P.

297. (Currently Amended) The labeled target of claim 287, wherein said backbone further comprises one or more carbon atoms.

298. (Currently Amended) The labeled target of claim 287, wherein said backbone further comprises at least one non-carbon atom.

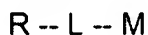
299. (Currently Amended) The labeled target of claim 298, wherein said non-carbon atom ~~comprises~~ is a sulfur, oxygen or nitrogen.

300. (Canceled)

301. (Previously Presented) The labeled target of claim 287, wherein said chemical group L comprises a di-peptide or an oligo-peptide.

302. (Previously Presented) The labeled target of claim 301, wherein said di-peptide or oligo-peptide comprises (glycine)₂ or (glycine)₄.

303. (Currently Amended) A labeling reagent comprising



wherein R is a reactive group, M is a marker moiety and L is a chemical group covalently linking said M to R, said chemical group L comprising a backbone that comprises at least two consecutive peptide bonds, wherein at least one of said two consecutive peptide bonds are separated by a single atom.

304. (Previously Presented) The labeling reagent of claim 303, wherein said reactive group R comprises sulfhydryl, hydroxyl, amine, isothiocyanate, isocyanate, monochlorotriazine, dichlorotriazine, mono- or di-halogen substituted pyridine, mono- or di-halogen substituted diazine, maleimide, aziridine, sulfonylhalide, acid halide, hydroxysuccinimide ester, hydroxysulfosuccinimide ester, imidoester, hydrazine, azidonitrophenyl, azide, 3-(2-pyridyl dithio)-propionamide, glyoxal or aldehyde.

305. (Currently Amended) The labeling reagent of claim 303, wherein ~~as~~asaid reactive group R is capable of forming a carbon-carbon linkage with a target.

306. (Previously Presented) The labeling reagent of claim 303, wherein said reactive group R comprises an alkene group, an alkyne group, a halogenated compound or a metallo-organic compound.

307. (Currently Amended) The labeling reagent of claim ~~306~~303, wherein said reactive group R comprises a metallo-organic compound comprisinges mercury, zinc, copper or platinum.

308. (Currently Amended) The labeling reagent of claim ~~306~~303, wherein said reactive group R comprises a metallo-organic compound comprisinges an aromatic group, an aromatic heterocyclic group, an alkene group or an alkyne group.

309. (Currently Amended) The labeling reagent of claim 303, wherein said marker moiety M comprises a ligand that comprises biotin, iminobiotin, ~~digoxigenin~~ digoxigenin or fluorescein.

310. (Previously Presented) The labeling reagent of claim 303, wherein said marker moiety M comprises a fluorescent dye.

311. (Previously Presented) The labeling reagent of claim 310, wherein said fluorescent dye comprises a xanthene dye, a cyanine dye, a coumarin dye, a porphyrin dye or a composite dye.

312. (Currently Amended) The labeling reagent of claim ~~311~~310, wherein said fluorescent dye comprises a xanthene dye comprisinges fluorescein, rhodamine or rhodol, or derivatives thereof.

313. (Canceled)

314. (Currently Amended) The ~~labeled target~~ labeling reagent of claim ~~313~~303, wherein said single atom comprises C, N, S, O or P.

315. (Currently Amended) The ~~labeled target~~ labeling reagent of claim 303, wherein said backbone further comprises one or more carbon atoms.

316. (Currently Amended) The ~~labeled target~~ labeling reagent of claim 303, wherein said backbone further comprises at least one non-carbon atom.

317. (Currently Amended) The ~~labeled target~~ labeling reagent of claim ~~303~~316, wherein said non-carbon atom comprises sulfur, oxygen or nitrogen.

318. (Currently Amended) The ~~labeled target~~ labeling reagent of claim 303, wherein said chemical group L further comprises at least one additional moiety comprising a peptide bond[[s]], an amino acid[[s]], a C₁ – C₂₀ aliphatic chains ~~from C₁ through C₂₀~~, an alkene group[[s]], an alkyne group[[s]], a saturated or unsaturated or partially saturated ring[[s]], a heterocyclic rings ~~and, or~~ a sugar[[s]].

319. (Currently Amended) The ~~labeled target~~ labeling reagent of claim 303, wherein said chemical group L comprises a di-peptide or an oligo-peptide.

320. (Currently Amended) The ~~labeled target~~ labeling reagent of claim 319, wherein said di-peptide or oligo-peptide comprises (glycine)₂ or (glycine)₄, gs and sugars.